

Delta Independent Science Board Meeting Summary

**Commons Conference Room, Regional San
8521 Laguna Station Road
Elk Grove, CA 95758**

1. Welcome and Declarations (Lund)

Board members present: Brian Atwater, Steve Brandt, Tracy Collier, Joe Fernando, Jay Lund, Richard Norgaard, Vince Resh, Joy Zedler; and John Wiens (via telephone for items 4 and 5).

Declarations: Brian Atwater's status at the United States Geological Survey (USGS) is now Emeritus.

2. Delta Lead Scientist Report (Dahm)

- The Special Issue in San Francisco Estuary and Watershed Science: [The State of Bay-Delta Science 2016, Part 2](#), was published today and contains articles by Larry Brown, Mike Dettinger and Jay Lund.
- At the October 27, 2016 Delta Stewardship Council (Council) meeting, Cliff will talk about the 2016 Bay Delta Science Conference and highlight an article from Geophysical Research Letters by Christine Shields and Jeffrey Kiehl, [Simulating the Pineapple Express in the half degree Community Climate System Model, CCSM4](#). Key points in this article are that under greenhouse warming, the duration of Pineapple Express storms are projected to significantly increase, and the intensity is also projected to increase. The paper is based on advanced modeling runs from National Center for Atmospheric Research (NCAR) supercomputers and suggests that atmospheric rivers in California may be a double-edged sword since they can be a major source of water supply but also catastrophic damage.
- In continuation of the Brown Bag seminars focused on articles from the State of Bay Delta Science 2016 papers, Letitia Grenier will be giving the next seminar based on the Landscape Ecology chapter, October 25, 2016. The informational flyer and WebEx information can be found [here](#).
- The Public Policy Institute of California recently published [California's Water](#), focused on how climate change will affect California water management. Chair Lund is a coauthor.
- A Science Enterprise Workshop (SEW), followed by a Delta Plan Interagency Implementation Committee (DPIIC) meeting are scheduled during the first half of November. Mike Chotkowski (USGS) will provide a more detailed update tomorrow about the SEW agenda.
- Collier asked how implementation of the Delta Science Plan and the High Impact Science Actions were proceeding. He suggested it would be good to have an update on these a couple time per year since so much effort went into the planning stages. **Action: Staff will coordinate future briefings to the Delta Independent Science Board (Delta ISB or Board) about the implementation of the Delta Science Plan and the Interim Science Action Agenda, beginning in November 2016 if possible.**

3. Delta ISB Chair's Report and Business Matters (Brandt)

- Informational items:
 - The 2017 Annual IEP Workshop is March 1 -3, 2017 at the Lake Natoma Inn in Folsom, CA.
 - Beginning in November, the Council plans to webcast future in-person meetings.

- Kelly has proposed 2017 meeting dates that take into consideration the availability of all Board members and the downstairs conference room. **Action: Once Lund and Brandt approve these dates, Kelly will distribute them to the Board.**
- The Board needs to organize themselves for the final review of California WaterFix. Individuals will review the chapters they commented on previously, to determine how adequately previous comments were addressed. A small team will compile the information from the individual Board members. **Outcome: Those who expressed interest in participating on the summary team include Brandt, Collier, Lund, Resh and Zedler.**
- The Board needs to anticipate having a work plan in March, if not earlier. They should leave significant time at the in-person November 18, 2016 meeting to review the master table of reviews and think about 2017 needs and events. **Action: 2017 planning will be a major agenda item for the November 18, 2016 meeting.**

4. Succession planning for Delta ISB (Dahm)

There are six members from the original cohort (Atwater, Canuel, Collier, Norgaard, Resh, Wiens) and four that have been added (Brandt, Fernando, Lund, Zedler). Cliff would like to hear about any recommendations the Delta ISB may have in regards to succession planning for the Board. What kind of expertise is needed? What type of reviews will the Board be facing in the future that new blood or different backgrounds could help? Should the Board be composed of the same subject area expertise or different subject area expertise? Resh offered that high profile activities of the Board include a review of the Bay-Delta monitoring enterprise, EcoRestore and flow requirements for the State Water Resources Control Board (SWRCB). As long as these continue to be big issues for the Board, it would be good to consider them in Cliff's thinking about Board constituents.

Lund commented that an important part of the Board is the in-state and out-of-state ratio. He believes it's important to maintain that split in order to maintain the outside perspectives that are so important. He also feels strongly that the Board benefits from not having 'one-trick ponies' since the Board can't afford to have any person sitting out on review items if it's not their area of expertise.

Collier added that areas of expertise can also be supplemented with help from the Delta Science Program so it's more important to find people who work well with others, rather than those with deep expertise in any given subject area. A broad skill set with some specialty seems to work well, if the person is a good team player.

Fernando suggested that since any new Board members will have to work organically with the Delta Science Program, it seems that the Delta Science Program can also provide recommendations.

Norgaard recalled that the CALFED Independent Science Board was much larger and provided more space for people with a social science background. He contends that we need to move towards more socioecological thinking, even though there are not a lot of people who think like that (yet).

Action: Kelly will send the previous Delta ISB vacancy announcement to Cliff.

5. Adaptive Management publication (Resh and Zedler)

Wien's perspective is that there is minor tweaking remaining on the draft adaptive management submission, but it is basically ready to submit. What is needed from the Board is a sense about whether this paper conveys the Board's sense of adaptive management and who wants to be included on authorship. Some

suggested that all Board members be included on the manuscript since the manuscript is based on a Board-review that everybody participated in. Others felt they didn't contribute enough in the production of the subsequent manuscript to warrant authorship.

Zedler added that this paper is different from the Board review of adaptive management in three ways:

- It takes a positive approach about what is working well instead of focusing on what is lacking
- It provides examples of other parallel projects that came to similar conclusions
- It provides specific examples with positive outcomes

Outcome: All Board members are welcome to include their name as an author of the manuscript but the decision will be that of the individual.

Action: All Board members will email Wiens by COB Wednesday October 19, 2016 to let him know if you would like to be included on authorship.

6. [Summary presentation](#) of the SWRCB's, *Working Draft Scientific Basis Report Supporting Potential Changes to the Bay-Delta Plan* (Chris Foe and Matt Holland, SWRCB)

Matt Holland shared a bit of background with the Delta ISB. Water Quality Control Plans are the primary means by which the State and Regional Water boards protect the beneficial uses of water. Since the Bay-Delta Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan) is of statewide interest, the planning process resides in the Division of Water Rights. The Bay-Delta Plan was last substantially updated in 1995, and those changes were implemented through Decision-1641 in 1999.

The SWRCB wants to structure their updates with adaptive management and coordination with other agencies in mind.

The SWRCB would benefit the most from having a Delta ISB completed review at the beginning of January 2017, but the SWRCB will accept comments after January too.

A SWRCB workshop scheduled for December 7, 2016 will be accessible via webcast and may be a good opportunity to hear public comments about the Draft Working Scientific Basis Report.

The draft working Scientific Basis Report is about 400 pages. The scope is bigger than the [Delta ISB's previous review of Phase 1: Southern Delta Salinity and San Joaquin River Flow Objectives](#), in May 2012. The scope for the current proposed review includes 20 tributaries.

Outcome: The Delta ISB agrees that this is too important a subject not to review but in order to make it happen by January, the Delta ISB will need to keep comments at a high level and adopt a very aggressive approach, starting with adding a teleconference meeting to the beginning of November. To facilitate this, the Delta ISB requested hard copies of the Draft Working Scientific Basis Report be made available to them.

Action items and approach:

- Matt will send a hard copy of the report to members of the Board as soon as possible.
- Kelly will schedule a teleconference meeting during the week of November 7, 2016 so that the Delta ISB members can report their thoughts and comments on the Working Draft Scientific Basis Report as they relate to the questions posed by the SWRCB in today's presentation (see slides 8 – 13).
- Brandt, Collier and Zedler will assemble the initial comments in preparation for a full-Board discussion during the November 18, 2016 Delta ISB meeting.
- Matt Holland and Chris Foe will be invited to both the November meetings.

Public Comment was provided by:

- Dan O'Hanlon (Kronick Moskovitz Tiedemann & Girard) who provide [additional questions](#) for the Delta ISB to consider when reviewing the draft working Scientific Basis Report.

- Paul Hutton (Metropolitan Water District of Southern California) who questioned the distinction between Phase 2 and Phase 4 of the Bay-Delta Plan update.

7. Field Trip

Points of interest included:

- Cosumnes River Preserve, where Dr. Michelle Stevens (CSUS) discussed Traditional Resource Management by Miwok Indians. The emphasis was on cultural knowledge systems and management practices. The group took a short walking tour to tended sedge beds.
- Oneto-Denier Restoration Site, where Dr. Judah Grossman (The Nature Conservancy) and Dr. Carson Jeffres (UC Davis) showed the group experimental plantings in high, medium and low restoration treatments in the West Basin of Oneto-Denier and discussed how the Cosumnes River provides the opportunity to observe how various flows and hydrologic conditions have the potential to drive different ecological processes.

10. Meeting adjourned for the day

Friday October 14, 2016 – (8521 Laguna Station Road, Elk Grove)

1. The group received a presentation from the Sacramento Regional County Sanitation District Wastewater Treatment Plant staff, and then completed a walking tour of the laboratory and plant facilities.

2. Delta Stewardship Council Executive Officer's reports (Pearson)

- At the September 29 and 30, 2016 Council meeting:
 - The Governor's administration reported about the [Delta Smelt Resiliency Strategy](#) and Cliff Dahm had lots of good questions about adaptive management.
 - The second-ever amendment to the Delta Plan was passed (Single-year Water Transfers) so that was a milestone for the Council.
 - The Council received an update about San Francisco Estuary Institute's *A Delta Renewed: A Guide to Science-Based Ecological Restoration in the Delta*, and the California Department of Fish and Game's *Delta Conservation Framework*. Both efforts will be considered in laying the foundation for the development of an amendment to the Delta Plan's ecosystem restoration chapter. The supporting documentation (there are three) for this agenda item (#15) are [here](#), and the video broadcast can be found [here](#). SFEI's Delta Renewed will be released in conjunction with the 2016 Bay-Delta Science Conference.
- **Action: Kelly will send this information to the Board.**
- The October 27, 2016 meeting will feature a discussion about levee financing that includes the Delta Protection Commission and the work they are pursuing with the [Delta Flood Risk Management Assessment District Feasibility Study](#).
- Council staff is also beginning work on the 5-year update to the Delta Plan (2018).
- There is a DPIIC meeting scheduled for the afternoon of November 14, 2016, that leads right into the 2016 Bay-Delta Science Conference, followed by a Council meeting, then the Delta ISB meeting on November 18, 2016. The DPIIC meeting will highlight the outcomes of the Science Enterprise Workshop and start thinking about how to take action on those outcomes.

- Atwater asked for guidance on the Delta ISB's review of the final EIR/EIS for California WaterFix, similar to what has been previously provided by the Council. Executive Officer Pearson offered that the Council does not have any new questions but is interested in whether the Delta ISB is satisfied with how previously raised concerns were addressed (especially those related to adaptive management). She also offered that the Delta ISB should be advising the Council as though the final EIR/EIS for California WaterFix was going to come to the Council on appeal.

3. Science Enterprise Workshop (Chotkowski)

Mike Chotkowski reported that much of the planning for the SEW has been completed and the committee is now at the point where they just have to manage the event. There was a great turnout from invited guests. The event will begin with a boat tour in the Delta for the invited participants on Monday October 31, 2016. This is an opportunity for panelists to get acquainted with each other. The first day consists of regional presentations (Coastal Louisiana, Puget Sound, Chesapeake Bay, Florida Everglades, Great Lakes, and the California Bay-Delta), followed by a panel discussion chaired by Collier. The second day consists of four panel discussions (Science Strategies in Large Programs, Governance and Adaptive Management, Funding Resource Allocation, and, Legitimacy, Co-Production, and Communication). The third day (not available to the public) gathers science and policy makers together to discuss how to package and produce science in the Delta. There will be a written product for the workshop completed by January 1, 2017. A detailed agenda and the advance briefing can be found [here](#).

Action: Any Delta ISB members that are interested in attending the boat tour on Monday October 31, 2016, should let Mike know immediately.

4. Comprehensive Assessment of the Bay-Delta Monitoring Enterprise (Hoenicke)

Resh recommended that the Board formally proceed with initiating a comprehensive assessment of the Bay-Delta monitoring enterprise. There would be three major parties in the review being proposed; the Delta ISB, the Delta Science Program staff, and a contractor. The ultimate product is a full Board review. The immediate next steps and associated timeframe are listed below.

<u>Delta ISB Meeting Date:</u>	<u>Targeted Status:</u>
November 18, 2016	Delta ISB work group will discuss, in broad concept, the forthcoming prospectus and approach.
December 8, 2016	The initial draft prospectus will be circulated for full Board discussion. Also the will be the first opportunity to receive public input.
January 12, 2017	Potential action item to approve prospectus and begin targeted outreach and formal public comment period.

Outcome: All Delta ISB members present were in agreement to move forward with the comprehensive assessment of monitoring and officially make this review part of the Delta ISB's future work plan.

5. Closed session; Lead Scientist recruitment

6. Reconvene meeting and report out on open session (Lund)

Outcome: The Delta ISB recommended that the Council and USGS proceed with interviews for the Lead Scientist position. The Council and USGS agreed.

7. Program Review Updates

- Water Quality (Collier and Resh)

A tremendous amount of material was collected via the questionnaire process. It is evident that the Delta ISB will continue having to manage expectations about salinity, dissolved oxygen and temperature being excluded from the review. There are a couple groups that have requested to conduct interviews instead of completing the online questionnaire and those are still in process. From Collier's point of view, this is now a full Board effort.

Action: At the November 18, 2016 meeting, the Board will hear individual Board members comments on the material received via the questionnaire, discuss next steps and approach.

- Delta Levees (Atwater)

Atwater reported that there were minimal comments received on the Workshop Report – Earthquakes and High Water as Levee Hazards in the Sacramento-San Joaquin Delta, during the public comment period. He did receive a few but substantive comments from workshop participants, that preceded the public comment period. There was some discussion about whether this Workshop Report should receive some "treatment" or "polishing" from the Council's Communications Unit.

Outcome: The Delta ISB would like this Workshop Report to remain as-is but offer that the Council could create a one or two page glossy companion to the report, which could be used as part of roll-out material. The Delta ISB would not need to approve the roll-out material but are happy to be consulted.

Action: Staff will communicate this to outcome to the Council's Communication Unit.

Outcome: Atwater confirmed that he would be available to present the Workshop Report to the Council at its November 17-18, 2016 meeting.

- Delta as Place (Norgaard, Atwater and Zedler)

Norgaard reported that a draft of the Delta as an Evolving Place review will be available for full Board discussion at the December 8, 2016 teleconference.

- Water Supply Reliability (Lund)

Lund reported that his [Water Supply Reliability](#) paper in San Francisco Estuary and Watershed Science is now published. He is still contemplating other ideas about how to accomplish the Board's Water Supply Reliability review, given the circumstances and constituents of the current Board. Some ideas include a) outsourcing (but this was previously determined to be improper since the responsibility is that of the Board), b) delaying until after California WaterFix is sorted and then conducting more of a post-mortem on WaterFix, c) subdividing the subject of water supply reliability into smaller components (e.g. water system operations, water conservation, water demands), similar to what the Board had done for Ecosystem Sustainability.

Outcome: A decision was not made at this time.

8. Meeting Summary

- Decisions/Outcomes

Major outcomes from this meeting include:

- Immediately commence review of the SWRCB's Draft Working Scientific Basis Report for the Phase 2 update to the Bay-Delta Plan.
- Advance the Delta ISB efforts on the comprehensive assessment of the Bay-Delta monitoring enterprise.
- Proceed with interviews for the Lead Scientist position.

- Present the Levee Meeting Summary Workshop Report at the November 17-18, 2016 Council meeting as final.

- Actions

The most immediate action items include:

- Send out the 2017 meeting dates (Souza).
- Respond to Wiens about authorship on the adaptive management manuscript (Delta ISB).
- Schedule a teleconference meeting during the first week in November (Souza).
- Distribute the hard copy of the SWRCB's Draft Working Scientific Basis Report (Holland) so that Board members can begin reading it in time for an early November teleconference (Delta ISB).

- Major items for Nov 18, 2016 meeting at the Sacramento Convention Center:

- Organize/prioritize activities for 2017; begin work plan
- Discuss forthcoming prospectus and approach of the comprehensive assessment of the Bay-Delta monitoring enterprise.
- Receive update on the Lead Scientist recruitment effort
- Discuss response to water quality questionnaire, approach and next steps for water quality review.
- Discussion of initial comments on the SWRCB's Draft Working Scientific Basis Report, prepared by Brandt, Collier and Zedler.

9. Public Comment

There was no additional public comment.

10. Meeting adjourned